



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,862	01/18/2002	Takanori Ugai	1341.1119	9219
21171	7590	06/08/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			ORTIZ, BELIX M	
			ART UNIT	PAPER NUMBER
			2175	3
DATE MAILED: 06/08/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

PPE

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/050,862	UGAI ET AL.
	Examiner Belix M. Ortiz	Art Unit 2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,7,10 and 13 is/are rejected.
- 7) Claim(s) 4-6, 8-9,11,12,14 and 15 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

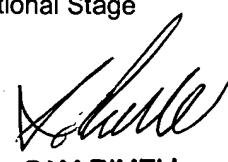
#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



SAM RIMELL  
PRIMARY EXAMINER

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### *Specification*

1. The specification is objected to because the arrangement of the disclosed application does not conform with 37 CFR 1.77(b).

Section headings appear underlined throughout the disclosed specification. Section heading should not be underlined. Appropriate corrections are required based on the guidelines provided below:

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50-pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.

Art Unit: 2175

- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Taguchi (U.S. patent 5,027,404).

As to claim 1, Taguchi teaches an information use frequency prediction program which causes a computer to function (see abstract and column 2, lines 38-41) as:

a temporal operation unit which performs temporal operation in a unit of predetermined time, sequentially, with respect to the relative relation between a first pattern representing a temporal change related to use frequency of first time series information and a second pattern representing a temporal change related to use frequency of second time series information (see figure 1, characters "14" and "15"; column 1, lines 50-57; column 2, lines 7-14; and column 7, lines 54-57);

a correlation coefficient calculation unit which calculates a correlation coefficient between the first time series information and the second time series information, for each unit of the predetermined time (see column 1, lines 50-55; column 7, lines 60-68; column 8, lines 1-6; and column 9, lines 32-35);

a pair specifying unit which specifies a pair of the first time series information and the second time series information, corresponding to the correlation coefficient having the highest value, of a plurality of correlation coefficients calculated by the correlation coefficient calculation unit (see column 2, lines 38-46); and

a prediction unit which predicts use frequency of the first time series information constituting the pair, based on the second pattern corresponding to the pair (see column 23, lines 30-41).

As to claim 2, Taguchi teaches wherein the temporal operation unit performs the temporal operation, with regard to all combinations of a plurality of first time series information belonging to a first group, and a plurality of second time series information belonging to a second group (see figure 2 and column 2, lines 38-41).

As to claim 10, Taguchi teaches an information use frequency prediction apparatus (see abstract and column 2, lines 38-41) comprising:

a temporal operation unit which performs temporal operation in a unit of predetermined time, sequentially, with respect to the relative relation between a first pattern representing a temporal change related to use frequency of first time series information and a second pattern representing a temporal change related to use frequency of second time series information (see figure 1, characters "14" and "15"; column 1, lines 50-57; column 2, lines 7-14; and column 7, lines 54-57);

a correlation coefficient calculation unit which calculates a correlation coefficient between the first time series information and the second time series information, for each unit of the predetermined time (see column 1, lines 50-55; column 7, lines 60-68; column 8, lines 1-6; and column 9, lines 32-35);

a pair specifying unit which specifies a pair of the first time series information and the second time series information, corresponding to the correlation coefficient having the highest value, of a plurality of correlation coefficients calculated by the correlation coefficient calculation unit (see column 2, lines 38-46); and

a prediction unit which predicts use frequency of the first time series information constituting the pair, based on the second pattern corresponding to the pair (see column 23, lines 30-41).

As to claim 13, Taguchi teaches an information use frequency prediction method (see abstract and column 2, lines 38-41) comprising:

Art Unit: 2175

a temporal operation unit which performs temporal operation in a unit of predetermined time, sequentially, with respect to the relative relation between a first pattern representing a temporal change related to use frequency of first time series information and a second pattern representing a temporal change related to use frequency of second time series information (see figure 1, characters "14" and "15"; column 1, lines 50-57; column 2, lines 7-14; and column 7, lines 54-57);

a correlation coefficient calculation unit which calculates a correlation coefficient between the first time series information and the second time series information, for each unit of the predetermined time (see column 1, lines 50-55; column 7, lines 60-68; column 8, lines 1-6; and column 9, lines 32-35);

a pair specifying unit which specifies a pair of the first time series information and the second time series information, corresponding to the correlation coefficient having the highest value, of a plurality of correlation coefficients calculated by the correlation coefficient calculation unit (see column 2, lines 38-46); and

a prediction unit which predicts use frequency of the first time series information constituting the pair, based on the second pattern corresponding to the pair (see column 23, lines 30-41).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi (U.S. patent 5,027,404) in view of Lee et al. (U.S. patent 6,463,428).

As to claim 3, Taguchi does not teach which causes a computer to function as sort unit which sorts a plurality of prediction results in the prediction unit, by using the use frequency as a key.

Lee et al. teaches user interface providing automatic generation and ergonomic presentation of keyword search criteria (see abstract), in which he teaches which causes a computer to function as sort unit which sorts a plurality of prediction results in the prediction unit, by using the use frequency as a key (see column 2, lines 3-7 and column 4, lines 15-19).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Taguchi, to include which causes a computer to function as sort unit which sorts a plurality of prediction results in the prediction unit, by using the use frequency as a key.

It would have been obvious to a person having ordinary skill in the

art at the time the invention was made to have modified Taguchi by the teaching of Lee et al., because which causes a computer to function as sort unit which sorts a plurality of prediction results in the prediction unit, by using the use frequency as a key, would enable the frequency prediction program, because "there are two major components to searching databases: filtering so irrelevant information is excluded, and sorting the filtered results by some priority schema. For example, an Internet search engine such as Google.RTM. uses a text query to filter and sort records in its database representing entry points in the World-Wide-Web" (see Lee el at., Column 1, lines 26-32).

"Filtering and/or sorting by explicit profile--A user is permitted to specify likes or dislikes by making selections from various categories. For example, the user can indicate that dramas and action movies are favored and that certain actors are disfavored. These criteria are then applied to sort the records returned by the filtering process. The degree of importance of the criteria may also be specified, although the complexity of adding this layer may make its addition to a system less worthwhile for the vast majority of users", (see Lee el at., Column 2, lines 48-56).

As to claim 7, Taguchi does not teach wherein the first time series information and the second time series information are time series information of use frequency of keywords in a keyword search engine on the Internet.

Lee et al. teaches user interface providing automatic generation and ergonomic presentation of keyword search criteria (see abstract), in which he teaches wherein the first time series information and the second time series information are time series information of use frequency of keywords in a keyword search engine on the Internet (see abstract and column 1, lines 27-57).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Taguchi, to include wherein the first time series information and the second time series information are time series information of use frequency of keywords in a keyword search engine on the Internet.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Taguchi by the teaching of Lee et al., because wherein the first time series information and the second time series information are time series information of use frequency of keywords in a keyword search engine on the Internet, would enable the frequency prediction program to facilitate to the user, the search of something on specific on the internet with just typing the keywords of what they are looking for.

***Allowable Subject Matter***

6. Claims 4-6, 8-9, 11-12 and 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, Taguchi (U.S. patent 5,027,404), and Lee et al. (U.S. patent 6,463,428), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the temporal operation unit shifts the second time series information, sequentially on the time base in a unit of the predetermined time, based on the first time series information, as claimed in claim 4.

The prior art of record, Taguchi (U.S. patent 5,027,404), and Lee et al. (U.S. patent 6,463,428), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the temporal operation unit expands or contracts the second time series information time wise, sequentially, in a unit of predetermined expansion and contraction, based on the first time series information, as claimed in claim 5.

The prior art of record, Taguchi (U.S. patent 5,027,404), and Lee et al. (U.S. patent 6,463,428), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the temporal operation unit shifts the second time series information, sequentially on the time base in a unit of the predetermined time, and expands and contracts the shifted second time series information time wise, sequentially, in a unit of predetermined expansion and contraction, based on the first time series information, as claimed in claim 6.

The prior art of record, Taguchi (U.S. patent 5,027,404), and Lee et al. (U.S. patent 6,463,428), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the first time series information and the second time series information are collected via different collection routes, as claimed in claim 8.

The prior art of record, Taguchi (U.S. patent 5,027,404), and Lee et al. (U.S. patent 6,463,428), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the first time series information and the second time series information are collected via the same collection route, and the collected time series information is grouped into two, as claimed in claim 9.

The prior art of record, Taguchi (U.S. patent 5,027,404), and Lee et al. (U.S. patent 6,463,428), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the temporal operation unit shifts the second time series information on the time base, sequentially, in a unit of predetermined time, based on the first time series information, as claimed in claim 11.

The prior art of record, Taguchi (U.S. patent 5,027,404), and Lee et al. (U.S. patent 6,463,428), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the temporal operation unit expands or contracts the second time series information time wise, sequentially, in a unit of predetermined expansion and contraction, based on the first time series information, as claimed in claim 12.

The prior art of record, Taguchi (U.S. patent 5,027,404), and Lee et al. (U.S. patent 6,463,428), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein in the temporal operation step, the second time series information is shifted on the time base, sequentially, in a unit of predetermined time, based on the first time series information, as claimed in claim 14.

The prior art of record, Taguchi (U.S. patent 5,027,404), and Lee et al. (U.S. patent 6,463,428), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein in the temporal operation step, the second time series information is expanded or contracted time wise, sequentially, in a unit of predetermined expansion and contraction, based on the first time series information, as claimed in claim 15.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Belix M. Ortiz whose telephone number is 703-305-7605. The examiner can normally be reached on moday-friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

bmo

May 26, 2004.



SAM RIMELL  
PRIMARY EXAMINER